

# **RENAUD BROS., INC.**

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## **Marlboro BRF 010-1 (43)**

### **Schedule Update Narrative**

#### **WORK PERFORMED**

The work performed to date has been design revisions, detailed value engineering proposal, temporary bridge erection, temporary bridge approaches, traffic detour paving and line striping, traffic transfer 1, bridge deck demo, existing abutment demo above water, and existing abutment demo below water, structural steel shop drawings, steel girder rigging plan, abutment excavation of earth, abutment excavation of rock, stone fill under bridge, stone fill on the South side of the project, pre-formed and pre-tied the reinforcing for the abutments below the bridge seat. We also had to revise the temporary detour on the East side to accommodate our previously installed excavation support.

#### **PROBLEMS AND DELAYS**

We experience a delay with the utility pole #153 not being moved in a timely fashion. This caused our abutment excavation and stone fill procedures to be slowed.

The rock excavation for the piles has been really slow going. The rock has been harder in some places and softer in others but the difference in the consistency of the rock has made no difference to the speed of the drilling. We also seem to be experiencing some shuffle with drill rig operators from one day to the next. We ask for driller consistency.

We have pushed forward with activities where we can to keep a steady progression on the project. The stone fill under the bridge and on the South side of the project is in place. The abutments have been pre-formed and reinforcing steel has been pre-tied and installed in the forms. Once the piles are set the forms will be placed and abutment placement will take place.

#### **DEVIATIONS**

The activities that have slipped from plan are the pile excavation activities. The earth excavation has taken longer because the ledge is deeper than shown on the bid documents. The amount of water was also unanticipated. The water is running across the top of the ledge towards the pile sockets creating difficult sealing of the temporary pile casings. The rock excavation for the piles has been difficult with the equipment provided from our sub-contractor. As was stated above the rock consistency has changed but has made no difference in the speed at which the pile sockets are drilled. The drill has also been challenged by the inconsistencies of the ledge surface. When starting the drilling for a socket the drill has to be turned slow until a defined socket is started then the drill can be operated at a faster speed. The down the hole hammer style of bit being used does not have a point on it to establish a center of hole to use as a pilot.

#### **CURRENT CRITICAL PATH**

The current critical path runs through the steel girders, the concrete deck and all the finishes. The critical path has not changed since the beginning of the project.

## **POTENTIAL PROBLEMS**

One of the problems that has been rectified was utility pole #153. Well into the project the utility pole was still in the way of excavating for abutment #2 and the stone fill abutment protection.

Cleaning of the drilled sockets is also posing a problem. The notes about the H piles assume the ledge and sockets are 100% in the dry. This is an unfeasible condition around a waterway. Typically waterways are at localized low lying areas drawing surrounding runoff to the area. Creating a dewatered area on top of ledge that is sloping downhill toward the work area is a nearly impossible task. At abutment 1 this condition is very prevalent. We installed the sleeves but could not seal them to the ledge so they have filled up with water by hydraulic pressure and have fines that have traveled with the water into the sleeves from the bottom. In order to provide clear sight to the bottom of the socket, our plan is to remove all the fines and water, but with the water coming in the bottom of the sleeve the attempt maybe in accomplishable, in which case we will need VTRANS collaboration on how to provide a clear sight to the bottom of the socket.

## **PROGRAM NOTES**

Activity 38 stone fill under bridge, only has about a day of actual work remaining in the activity but has a predecessor of abutment backfill. The abutment backfill can't be done until the abutment cure. So the activity is showing 48 days remaining which is not correct and I am unsure how to make it show the one day duration without creating another activity or breaking ties.